

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (original): An image-processing method comprising the steps of:

reconstructing an image which has a resolution differing from a reference-resolution, based on an image signal subjected to a multiple-resolution transformation process; and

calculating an image-processing parameter, based on a reference-processing parameter employed in performing a predetermined image-processing process on a reference-resolution image having said reference resolution, said image-processing parameter being employed in performing said predetermined image-processing process on the reconstructed image and causing the image characteristics of said reconstructed image subjected to said predetermined image processing process to be substantially the same as the image characteristics of said reference-resolution image subjected to said predetermined image-processing process.

2. (original): The image-processing method as set forth in claim 1, wherein said image signal is subjected to said multiple-resolution transformation process so that the resolution of each image is 2^k (where k is an integer) times that of said reference-resolution, and the image-size of each image is 2^{2k} times the image-size of said reference-resolution image; and

said reconstructed image is an image having a resolution which does not fall within the 2^k times range of said reference-resolution.

3. (original): The image-processing method as set forth in claim 1, wherein said reconstructed image subjected to said predetermined image-processing process is further converted to an image having a desired image-size.

4. (original): The image-processing method as set forth in claim 2, wherein said reconstructed image subjected to said predetermined image-processing process is further converted to an image having a desired image-size.

5. (original): The image-processing method as set forth in claim 2, wherein said reconstructing is performed so that the image-size of said reconstructed image is 2^{2k} times the image-size of said reference-resolution image, close to the image-size of an image which is to be reproduced and output as a visible image; and

an image subjected to said predetermined image-processing process is further subjected to a zoom process so that it becomes equal in size to the image-size of said output image.

6. (original): The image-processing method as set forth in claim 1, wherein said reference-processing parameter is stored in correlation with said image signal.

7. (original): The image-processing method as set forth in claim 2, wherein said reference-processing parameter is stored in correlation with said image signal.

8. (original): The image-processing method as set forth in claim 3, wherein said reference-processing parameter is stored in correlation with said image signal.

9. (original): The image-processing method as set forth in claim 5, wherein said reference-processing parameter is stored in correlation with said image signal.

10. (original): The image-processing method as set forth in claim 1, wherein said image-processing parameter is calculated based on the characteristic of said multiple-resolution transformation process.

11. (original): The image-processing method as set forth in claim 2, wherein said image-processing parameter is calculated based on the characteristic of said multiple-resolution transformation process.

12. (original): The image-processing method as set forth in claim 3, wherein said image-processing parameter is calculated based on the characteristic of said multiple-resolution transformation process.

13. (original): The image-processing method as set forth in claim 5, wherein said image-processing parameter is calculated based on the characteristic of said multiple-resolution transformation process.

14. (original): The image-processing method as set forth in claim 6, wherein said image-processing parameter is calculated based on the characteristic of said multiple-resolution transformation process.

15. (original): An image-processing system comprising:
reconstruction means for reconstructing an image which has a resolution differing from the reference-resolution, based on an image signal subjected to a multiple-resolution transformation process;

image-processing means for performing a predetermined image-processing process on the reconstructed image; and

parameter-setting means for deriving an image-processing parameter, based on a reference-processing parameter employed in performing a predetermined image-processing process on a reference-resolution image having said reference-resolution, and setting the derived image-processing parameter to said image-processing means, said image-processing parameter being employed in performing said predetermined image-processing process on said reconstructed image and causing the image characteristics of said reconstructed image subjected to said predetermined image-processing process to be substantially the same as the image characteristics of said reference-resolution image subjected to said predetermined image-processing process, approximately the same.

16. (original): The image-processing system as set forth in claim 15, wherein said image signal is subjected to said multiple-resolution transformation process so that the resolution

of each image is 2^k (where k is an integer) times that of said reference-resolution and an image-size of each image is 2^{2k} times that of the image-size of said reference-resolution image; and

said reconstruction means obtains said reconstructed image having a resolution not falling within the 2^k times range of said reference-resolution.

17. (original): The image-processing system as set forth in claim 15, further comprising zoom-processing means for further converting said reconstructed image subjected to said predetermined image-processing process, to an image having a desired image-size.

18. (original): The image-processing system as set forth in claim 16, further comprising zoom-processing means for further converting said reconstructed image subjected to said predetermined image-processing process, to an image having a desired image-size.

19. (original): The image-processing system as set forth in claim 16, wherein said reconstruction means reconstructs an image so that the image-size of said image is 2^{2k} times the image-size

said reference-resolution image, close to the image-size of an image which is reproduced and output as a visible image; and

zoom-processing means is further provided for performing a zoom process on an image subjected to said predetermined image-processing, so that it becomes equal in size to the image-size of said output image.

20. (original): The image-processing system as set forth in claim 15, wherein said parameter-setting means derives said image-processing parameter, based on the characteristic of said multiple-resolution transformation process.

21. (original): The image-processing system as set forth in claim 16, wherein said parameter-setting means derives said image-processing parameter, based on the characteristic of said multiple-resolution transformation process.

22. (original): The image-processing system as set forth in claim 17, wherein said parameter-setting means derives said image-processing parameter, based on the characteristic of said multiple-resolution transformation process.

23. (original): The image-processing system as set forth in claim 19, wherein said parameter-setting means derives said image-processing parameter, based on the characteristic of said multiple-resolution transformation process.

24. (original): A computer readable storage medium recording a program to be executed by a computer, said program comprising:

a procedure for reconstructing an image having a resolution differing from the reference-resolution, based on an image signal subjected to a multiple-resolution transformation process;

a procedure for calculating an image-processing parameter, based on a reference-processing parameter employed in performing a predetermined image-processing process on a

reference-resolution image having said reference-resolution, said image-processing parameter being employed in performing said predetermined image-processing on said reconstructed image and causing the image characteristics of said reconstructed image subjected to said predetermined image-processing to be substantially the same as the image characteristics of said reference-resolution image subjected to said predetermined image-processing; and
a procedure for performing said predetermined image-processing process on said reconstructed image by use of said image-processing parameter.

25. (original): The storage medium as set forth in claim 24, wherein said image signal is subjected to said multiple-resolution transformation process so that the resolution of each image is 2^k (where k is an integer) times that of said reference-resolution, and the image-size of each image is 2^{2k} times that of the image-size of said reference-resolution image; and
said reconstructing procedure is a procedure for obtaining said reconstructed image having a resolution not falling within the 2^k times range of said reference-resolution.

26. (original): The storage medium as set forth in claim 24 further comprising a procedure of further converting said reconstructed image subjected to said predetermined image-processing process, to an image having a desired image-size.

27. (original): The storage medium as set forth in claim 25 further comprising a procedure of further converting said reconstructed image subjected to said predetermined image-processing, to an image having a desired image-size.

28. (original): The storage medium as set forth in claim 24, wherein said reconstructing means is a procedure of reconstructing an image so that the image-size of said image is 2^{2k} times the image-size of said reference-resolution image, close to the image-size of an image to be reproduced and output as a visible image; and

a zooming procedure is further provided for performing a zoom process on an image subjected to said predetermined image-processing, so that it becomes equal in size to the image-size of said output image.

29. (original): The storage medium as set forth in claim 24, wherein said parameter calculating procedure is a procedure of calculating said image-processing parameter, based on the characteristic of said multiple-resolution transformation process.

30. (original): The storage medium as set forth in claim 25, wherein said parameter calculating procedure is a procedure of calculating said image-processing parameter, based on the characteristic of said multiple-resolution transformation process.

31. (original): The storage medium as set forth in claim 26, wherein said parameter calculating procedure is a procedure of calculating said image-processing parameter, based on the characteristic of said multiple-resolution transformation process.

32. (original): The storage medium as set forth in claim 28, wherein said parameter calculating procedure is a procedure of calculating said image-processing parameter, based on the characteristic of said multiple-resolution transformation process.

33. (new): The method of claim 1, wherein the image signal is based on a digital image.

34. (new): The system of claim 15, wherein the image signal is based on a digital image.

35. (new): The storage medium as set forth in claim 24, wherein the image signal is based on a digital image.

36. (new): The method of claim 1, wherein the multiple-resolution process comprises one of a wavelet-transformation, Laplacian pyramid-transformation and a Gaussian pyramid transformation.

37. (new): The system of claim 15, wherein the multiple-resolution process comprises one of a wavelet-transformation, Laplacian pyramid-transformation and a Gaussian pyramid transformation.

38. (new): The storage medium as set forth in claim 24, wherein the multiple-resolution process comprises one of a wavelet-transformation, Laplacian pyramid-transformation and a Gaussian pyramid transformation.

39. (new): The method of claim 1, wherein the calculation of an image-processing parameter comprises spatial calculations to determine at least one of mask sizes and filter coefficients for the predetermined image-processing process.

40. (new): The system of claim 15, wherein the derivation of the image-processing parameter comprises spatial calculations to determine at least one of mask sizes and filter coefficients for the predetermined image-processing process.

41. (new): The storage medium as set forth in claim 24, wherein the calculation of the image-processing parameter comprises spatial calculations to determine at least one of mask sizes and filter coefficients for the predetermined image-processing process.

42. (new): The method of claim 39, wherein the image-processing parameter is based on at least one of a zoom information of the reference-resolution image and the reference resolution.

43. (new): The system of claim 40, wherein the image-processing parameter is based on at least one of a zoom information of the reference-resolution image and the reference resolution.

44. (new): The storage medium as set forth in claim 41, wherein the image-processing parameter is based on at least one of a zoom information of the reference-resolution image and the reference resolution.

45. (new): The method of claim 39, wherein the predetermined image-processing process comprises a spatial filter for performing at least one of a high-frequency enhancement process and a smoothing process.

46. (new): The system of claim 40, wherein the predetermined image-processing process comprises a spatial filter for performing at least one of a high-frequency enhancement process and a smoothing process.

47. (new): The storage medium as set forth in claim 41, wherein the predetermined image-processing process comprises a spatial filter for performing at least one of a high-frequency enhancement process and a smoothing process.